

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/822,269	NUMATA, KOHJI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christopher O. Onuaku	2616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-7, (now renumbered 1,2,3,5,4,6&7, respectively).
3. ☒ The drawings filed on 20 April 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>12/11/04</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                               | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-7 are allowable over the prior art of record.
2. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the invention relates to a method for moving image reproduction for the purpose of display of NTSC format image data obtained as 32 pull-down from an image of a movie as a non-interleaved image on a display.

The closest references Nishio (US 6,385,240) discloses a progressive image signal transmitting/receiving apparatus, and a method and a medium each using a bitstream obtained by encoding, e.g., a progressive video signal based on the MPEG2 formats, and Zhu et al (US 6,069,664) a method and apparatus for converting video signals from one format to another format, including for converting a digital progressive video signal to a digital interlaced video signal and back to a digital progressive video signal.

However, Nishio and Zhu et al fail to explicitly disclose a method for playback of a moving image, where the method comprises making a non-interlaced display of the currently read-out frame at an interval of 1/30 in the case in which a judgment was

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made that images were not the same, and reading image data without making a judgment for 4 frames from the next frame to be read out when a judgment was that images were the same, and forming one frame from odd fields of a currently read-out frame and even fields of a next frame to be read out, so that 2 frames are reduced to 1 frame and with 4 frames including the frame being displayed in non-interlaced manner at an interval of 1/24 second.

Regarding claim 6, the invention relates to a method for moving image reproduction for the purpose of display of NTSC format image data obtained as 32 pull-down from an image of a movie as a non-interleaved image on a display.

The closest references Nishio (US 6,385,240) discloses a progressive image signal transmitting/receiving apparatus, and a method and a medium each using a bitstream obtained by encoding, e.g., a progressive video signal based on the MPEG2 formats, and Zhu et al (US 6,069,664) a method and apparatus for converting video signals from one format to another format, including for converting a digital progressive video signal to a digital interlaced video signal and back to a digital progressive video signal.

However, Nishio and Zhu et al fail to explicitly disclose a moving image playback apparatus, where the apparatus comprises a display controller which reads out image data from the even and odd fields selected by the display buffer switch respectively and outputs a non-interlaced type of signal, wherein the display buffer switch has input to it the judgment results and only in a case in which the images are judged to be the same,

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after the memory storing the frame of an immediately previous read-out is overwritten by image data of a next frame, an odd field of the memory storing the currently read-out frame and an even field of the memory storing the next frame are selected, and wherein in other cases even and odd fields of the memory storing the currently read-out frame are selected, the display controller being configured to input the judgment results and so that a display interval for each frame is made  $1/24$  second for 4 frames from a time the judgment is made and that the images are the same, the interval being made  $1/30$  second at other times.

Regarding claim 7, the invention relates to a method for moving image reproduction for the purpose of display of NTSC format image data obtained as 32 pull-down from an image of a movie as a non-interleaved image on a display.

The closest references Nishio (US 6,385,240) discloses a progressive image signal transmitting/receiving apparatus, and a method and a medium each using a bitstream obtained by encoding, e.g., a progressive video signal based on the MPEG2 formats, and Zhu et al (US 6,069,664) a method and apparatus for converting video signals from one format to another format, including for converting a digital progressive video signal to a digital interlaced video signal and back to a digital progressive video signal.

However, Nishio and Zhu et al fail to explicitly disclose a moving image playback apparatus, where the apparatus comprises a display controller which reads out even and odd stored in the memory of the frame buffer and outputs a non-interlaced type of

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signal, wherein the video decoding section is configured so that only when a judgment is made that the images are the same is made by the same-image judgment section only the odd fields of the currently read-out frame is decoded and output to the memory, after which the next frame image data is read and the even field only is decoded and output to the memory, and wherein the display controller is configured so as to input the judgment results and to make a display interval formed between every successive two frames, 1/24 second for 4 successive frames counted from the time the judgment is made that the images are the same, while this interval being made 1/30 second at other conditions.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Adams et al (US 6,380,978) teach portable video player technology and the processing of video images, including techniques for deinterlacing and enhancing video images.

Washino (US 5,999,220) teaches video production, photographic image processing, and computer graphics design, including a multi-format video production system capable of professional quality editing and manipulation of images intended for television and other applications, including HDTV programs.

Hung et al (US 6,542,198) teach video display, including a method and apparatus for displaying video at an optimum frame rate.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher O. Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on M-F 8:30-6:00.

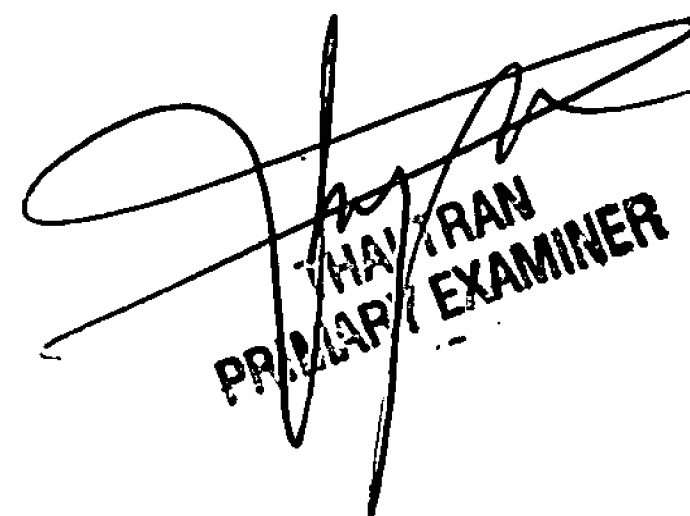
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B. Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



COO

12/11/04



THUY TRAN  
PRIMARY EXAMINER